

I Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

DEC 15 2008

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 5

Complete if Known	
Application Number	10/572,720
Filing Date	August 1, 2006
First Named Inventor	Weisman et al.
Art Unit	1755
Examiner Name	Carol M. Koslow
Attorney Docket Number	11321-P075WOUS

U. S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear
		Country Code ³ "Number ⁴ "Kind Code ⁵ (if known)			T ⁶
/CMK/		WO 2005/012172	02-10-2005		
/CMK/		JP 2003-026981	01-29-2003		

Examiner Signature	/C. Melissa Koslow/	Date Considered	02/03/2009
-----------------------	---------------------	--------------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	10/572,720
				Filing Date	August 1, 2006
				First Named Inventor	Weisman et al.
				Art Unit	1755
				Examiner Name	Carol M. Koslow
Sheet	2	of	5	Attorney Docket Number	11321-P075WOUS

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ²
/CMK/	1	Iijima, "Helical microtubules of graphitic carbon", <i>Nature</i> 354, 56 - 58 (07 November 1991); doi:10.1038/354056a0		
/CMK/	2	Iijima et al., " Single-shell carbon nanotubes of 1-nm diameter", <i>Nature</i> 363, 603 - 605 (17 June 1993); doi:10.1038/363603a0		
/CMK/	3	Bethune et al., "Cobalt-catalysed growth of carbon nanotubes with single-atomic-layer walls", <i>Nature</i> 363, 605 - 607 (17 June 1993); doi:10.1038/363605a0		
/CMK/	4	Baughman et al., "Carbon Nanotubes--the Route Toward Applications", <i>Science</i> 2 August 2002 297: 787-792 [DOI: 10.1126/science.1060928]		
/CMK/	5	O'Connell et al., " Band Gap Fluorescence from Individual Single-Walled Carbon Nanotubes", <i>Science</i> 26 July 2002 297: 593-596 [DOI: 10.1126/science.1072631]		
/CMK/	6	Dresselhaus, et al., <u>Science of Fullerenes and Carbon Nanotubes: Their Properties and Applications</u> , 965 pages, Academic Press (February 20, 1996)		
/CMK/	7	Bronikowski et al., " Gas-phase production of carbon single-walled nanotubes from carbon monoxide via the HiPco process: A parametric study", <i>Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films</i> , Vol.19, Issue 4, pp. 1800-1805, July 2001		
/CMK/	8	R. Saito, et al., <u>Physical Properties of Carbon Nanotubes</u> , World Scientific Publishing Company; 1st edition (September 15, 1998) 259 pages		
/CMK/	9	Avouris, "Molecular Electronics with Carbon Nanotubes", <i>Acc. Chem. Res.</i> , July 31, 2002, 35 (12), pp 1026-1034		
/CMK/	10	Strano et al., " The Role of Surfactant Adsorption during Ultrasonication in the Dispersion of Single-Walled Carbon Nanotubes", <i>Journal of Nanoscience and Nanotechnology</i> , Volume 3, Numbers 1-2, February 2003 , pp. 81-86(6)		

Examiner Signature	/C. Melissa Koslow/	Date Considered	02/03/2009
--------------------	---------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1. Applicant's unique citation designation number (optional). 2. Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				Complete if Known	
				Application Number	10/572,720
				Filing Date	August 1, 2006
				First Named Inventor	Weisman et al.
				Art Unit	1755
				Examiner Name	Carol M. Koslow
Sheet	3	of	5	Attorney Docket Number	11321-P075WOUS

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ²
/CMK/	11	Bachilo et al., "Structure-Assigned Optical Spectra of Single-Walled Carbon Nanotubes", Science 20 December 2002 298: 2361-2366; published online 29 November 2002 [DOI: 10.1126/science.1078727] (in Reports)		
/CMK/	12	Thess et al., "Crystalline Ropes of Metallic Carbon Nanotubes", Science 26 July 1996 273: 483-487 [DOI: 10.1126/science.273.5274.483] (in Reports)		
/CMK/	13	Chen et al., "Solution Properties of Single-Walled Carbon Nanotubes", Science 2 October 1998 282: 95-98 [DOI: 10.1126/science.282.5386.95] (in Reports)		
/CMK/	14	Holzinger et al., "Sidewall Functionalization of Carbon Nanotubes", Angewandte Chemie International Edition, Volume 40, Issue 21, Date: November 5, 2001, Pages: 4002-4005		
/CMK/	15	Khabashesku et al., "Fluorination of Single-Wall Carbon Nanotubes and Subsequent Derivatization Reactions", pp 1087-1095, Publication Date (Web): December 02, 2002.		
/CMK/	16	Strano et al., "Electronic Structure Control of Single-Walled Carbon Nanotube Functionalization", Science 12 September 2003 301: 1519-1522 [DOI: 10.1126/science.1087691]		
/CMK/	17	S. Niyogi et al., "Chemistry of Single-Walled Carbon Nanotubes", pp 1105-1113 Publication Date (Web): October 15, 2002		
/CMK/	18	Krupke et al., "Separation of Metallic from Semiconducting Single-Walled Carbon Nanotubes", Science 18 July 2003 301: 344-347; published online 26 June 2003		
/CMK/	19	Chattophadhyay et al., "A Route for Bulk Separation of Semiconducting from Metallic Single-Wall Carbon Nanotubes", pp 3370-3375, Publication Date (Web): February 22, 2003		
/CMK/	20	Zheng et al., "DNA-assisted dispersion and separation of carbon nanotubes", Nature Matter, May 2003, Volume 2 No 5 pp285-348		

Examiner Signature	/C. Melissa Koslow/	Date Considered	02/03/2009
--------------------	---------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.
This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO:**
Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	10/572,720
				Filing Date	August 1, 2006
				First Named Inventor	Weisman et al.
				Art Unit	1755
				Examiner Name	Carol M. Koslow
Sheet	4	of	5	Attorney Docket Number	11321-P075WOUS

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ²
/CMK/	21	Chen et al., "Bulk Separative Enrichment in Metallic or Semiconducting Single-Walled Carbon Nanotubes", pp 1245-1249, Publication Date (Web): August 20, 2003		
/CMK/	22	Ebbesen, et al., "Carbon Nanotubes," Annual Review of Materials Science, vol. 24		
/CMK/	23	Vander Wal et al., " Flame synthesis of Fe catalyzed single-walled carbon nanotubes and Ni catalyzed nanofibers: growth mechanisms and consequences", <i>Chemical Physics Letters</i> , Volume 349, Issues 3-4, 30 November 2001, Pages 178-184		
/CMK/	24	Hafner et al., " Catalytic growth of single-wall carbon nanotubes from metal particles <i>Chemical Physics Letters</i> , Volume 296, Issues 1-2, 30 October 1998, Pages 195-202		
/CMK/	25	Cheng et al., " Bulk morphology and diameter distribution of single-walled carbon nanotubes synthesized by catalytic decomposition of hydrocarbons", <i>Chemical Physics Letters</i> , Volume 289, Issues 5-6, 19 June 1998, Pages 602-610		
/CMK/	26	Nikolaev et al., " Gas-phase catalytic growth of single-walled carbon nanotubes from carbon monoxide ", <i>Chemical Physics Letters</i> , Volume 313, Issues 1-2, 5 November 1999, Pages 91-97		
/CMK/	27	Chiang et al., " Purification and Characterization of Single-Wall Carbon Nanotubes", <i>J. Phys. Chem. B</i> , 2001, 105 (6), pp 1157-1161, Publication Date (Web): January 12, 2001		
/CMK/	28	Chiang et al., " Purification and Characterization of Single-Wall Carbon Nanotubes (SWNTs) Obtained from the Gas-Phase Decomposition of CO (HiPco Process)", <i>J. Phys. Chem. B</i> , 2001, 105 (35), pp 8297-8301, Publication Date (Web): August 10, 2001		
/CMK/	29	Liu et al., "Fullerene Pipes", <i>Science</i> 22 May 1998 280: 1253-1256 [DOI: 10.1126/science.280.5367.1253] (in Reports)		
/CMK/	30	Gu et al., " Cutting Single-Wall Carbon Nanotubes through Fluorination", <i>Nano Letters</i> , 2002, 2 (9), pp 1009-1013, Publication Date (Web): August 7, 2002		

Examiner Signature	/C. Melissa Koslow/	Date Considered	02/03/2009
--------------------	---------------------	-----------------	------------

*EXAMINER: Initial reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO:** Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				Complete if Known	
				Application Number	10/572,720
				Filing Date	August 1, 2006
				First Named Inventor	Weisman et al.
				Art Unit	1755
				Examiner Name	Carol M. Koslow
Sheet	5	of	5	Attorney Docket Number	11321-P075W0US

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
/CMK/	31	Ramesh et al., "Dissolution of Pristine Single Walled Carbon Nanotubes in Superacids by Direct Protonation", <i>J. Phys. Chem. B</i> , 2004, 108 (26), pp 8794-8798, Publication Date (Web): May 26, 2004			
/CMK/	32	Bahr et al., "Covalent chemistry of single-wall carbon nanotubes", <i>J. Mater. Chem.</i> , 2002, 12, 1952 - 1958, DOI: 10.1039/b201013p			
/CMK/	33	Weisman et al., "Dependence of Optical Transition Energies on Structure for Single-Walled Carbon nanotubes in Aqueous Suspension: An Empirical Kataura Plot", <i>Nano Lett.</i> , Vol. 3, No. 9, pp. 1235-1238, 2003			

Examiner Signature	/C. Melissa Koslow/	Date Considered	02/03/2009
--------------------	---------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.